

REMARKS

Claims 3-6, 9-11, 13-17 and 28 are pending in this application. By this Amendment, claims 1, 2, 18-27, 29 and 30 are canceled without prejudice to, or disclaimer of, the subject matter recited in those claims. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116(b)(1) since the amendments cancel rejected claims. Entry of the amendments is thus respectfully requested.

The Office Action, in paragraph 3, rejects claims 1 and 2 under 35 U.S.C. §102(b) as being anticipated by JP-A-60-156023 (hereinafter "JP '023"). The Office Action, in paragraph 9, rejects claim 27 under 35 U.S.C. §103(a) as being unpatentable over JP '023. The cancellation of claims 1, 2 and 27 renders these rejections moot.

The Office Action, in paragraph 5, rejects 3, 4 and 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,018,817 to Suzuki et al. (hereinafter "Suzuki"). The Office Action, in paragraphs 11 and 13, rejects claims 5, 6, 9-11, 14-17 and 28 under 35 U.S.C. §103(a) as being unpatentable over Suzuki. These rejections are respectfully traversed.

Suzuki teaches a method of optically coupling one end of an optical fiber to a waveguide formed on a substrate, such that an end portion of the fiber is fitted in a groove formed in the substrate (Abstract). The Office Action, in paragraph 6, indicates that the substrate 10 is considered to correspond to the connecting part recited in, for example, claim 3. The analysis of the Office Action fails for the following reason.

The substrate 10 disclosed in Suzuki comprises a groove 12 formed in the substrate 10 (see e.g., col. 7, line 49 - col. 9, line 11). The substrate 10 has a two-dimensional waveguide 18, which the Office Action alleges corresponds to the optical element of the pending claims, formed on the substrate (col. 7, lines 42-45). The substrate 10 is disclosed as being employed

"as a base for various optical elements such as an optical integrated circuit or a solid optical deflector" (col. 7, lines 45-48). Additionally, the optical fiber 14 is fitted in the formed groove such that a flat end face of the fiber 14 is suitably aligned with the exposed end portion of the waveguide (col. 8, lines 62-66). The same end portion of the fiber is secured to the substrate 10 with a suitable resin, for instance, a resin which is curable by ultraviolet radiation (col. 9, lines 5-7).

These disclosures of Suzuki indicate that the two-dimensional waveguide 18 cannot reasonably be considered to correspond to an optical element including an optical surface. Rather, Suzuki discloses that the substrate 10 including the two-dimensional waveguide 18 is employed as a base for various optical elements. Further, the optical waveguide being formed on the substrate 10 and the end portion of the fiber being secured to the substrate 10 with a suitable resin suggests that the substrate 10 cannot reasonably be considered to correspond to a connecting part that joins the optical surface and only the exposed surface of the core of the optical fiber.

Claim 3 recites, among other features, an optical element including optical surface; an optical fiber having a clad and a core, a part of the core being enclosed in the clad, the core having an exposed surface; and a connecting part that joins the optical surface and only the exposed surface of the core of the optical fiber. For at least the reasons indicated above, Suzuki cannot reasonably be considered teach, or even to have suggested, this combination of features as positively recited in independent claim 3. Further, claims 4-6, 9-11, 13-17 and 28 are also neither taught, nor would be they have been suggested, by Suzuki for at least the respective dependence of these claims directly or indirectly on independent claim 3, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 3-6, 9-11, 13-17 and 28 under 35 U.S.C. §§102(b) or 103(a), as being anticipated by, or unpatentable over, Suzuki are respectfully requested.

The Office Action, in paragraphs 20 and 30, rejects claims 18-26, 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over JP-A-09-197196 to Eguchi et al. (hereinafter "Eguchi") in view of U.S. Patent No. 6,773,169 to Ebeling et al. (hereinafter "Ebeling"), and Eguchi in view Ebeling, and further in view of U.S. Patent No. 5,707,684 to Hayes et al. (hereinafter "Hayes"). The cancellation of claims 18-26, 29 and 30 renders these rejections moot.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 3-6, 9-11, 13-17 and 28 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,



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